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HYPERFEMININITY AS A MALADAPTIVE ADHERENCE TO FEMININE  
NORMS: CROSS-VALIDATION USING THE PERSONALITY ASSESSMENT  
INVENTORY AND PERSONALITY INVENTORY FOR DSM-5

by

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A Dissertation

Submitted to the Graduate Faculty

of the

University of North Dakota

in partial fulfillment of the requirements

for the degree of

Doctor of Philosophy

Grand Forks, North Dakota

August

2016

This dissertation, submitted by Hannah Baczynski in partial fulfillment of the requirements for the Degree of Doctor of Philosophy from the University of North Dakota, has been read by the Faculty Advisory Committee under whom the work has been done and is hereby approved.

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## PERMISSION

Title	Hyperfemininity as a Maladaptive Adherence to Feminine Norms: Cross-Validation using the Personality Assessment Inventory and Personality Inventory for DSM-5
Department	Psychology
Degree	Doctor of Philosophy

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## TABLE OF CONTENTS

LIST OF TABLES.....	vi
ACKNOWLEDGMENTS.....	vii
ABSTRACT.....	viii
CHAPTER	
I.    INTRODUCTION.....	1
Exploratory Factor Analyses.....	5
Confirmatory Factor Analyses.....	10
Abnormal Personality Traits and Psychopathology.....	11
II.   METHOD.....	14
Sample.....	14
Procedures.....	14
Materials.....	15
III.  RESULTS.....	17
Personality Inventory for DSM-5.....	17
Personality Assessment Inventory.....	21
IV.   DISCUSSION.....	27
Limitations.....	32
Future Directions.....	32
APPENDICES.....	35
REFERENCES.....	57



LIST OF TABLES

Table	Page
1. Bivariate correlations between the Hyperfemininity Questionnaire (HFQ) and the Personality Inventory for the DSM-5 (PID-5).....	19
2. Bivariate correlations between the Hyperfemininity Questionnaire (HFQ) and the Personality Assessment Inventory (PAI).....	22

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## ABSTRACT

In the present study, the construct validity of a new measure of hyperfemininity, the Hyperfemininity Questionnaire (HFQ), was examined. Hyperfemininity is defined as an exaggerated, strict, and overt adherence to stereotypic feminine gender role norms (Murnen & Byrne, 1999). The study built upon two exploratory factor analyses and a confirmatory factor analysis which found five factors included in the HFQ: traditional values, superficiality, emotionality, manipulation, and attraction to masculinity. Two well-established personality measures (Personality Assessment Inventory – PAI, Morey, 2007 and Personality Inventory for DSM-5 - PID-5, Krueger, Derringer, Markon, Watson, & Skodol, 2012) were used to establish the construct validity of several factors of the HFQ. Overall, the study found hyperfemininity to be correlated to increased psychopathology (e.g., symptoms of anxiety and depression) as well as personality traits such as separation anxiety, manipulativeness, submissiveness, and perfectionism. Implications and future research directions are discussed.

## **CHAPTER I**

### **INTRODUCTION**

The social construction of gender and gender roles can have adverse effects on those who attempt to conform too much or too little. For example, research focusing on aggression has found that males who conform too little to the masculine gender norms (e.g., are effeminate) and females who conform too little to feminine gender norms (e.g., are masculine) elicit more aggression from others, especially from males who subscribe to masculine gender role norms (e.g., Parrot & Zeichner, 2003; Parrot & Zeichner, 2008, Reidy, Shirk, Sloan & Zeichner, 2009). On the other end of the spectrum, those who conform to gender roles too strictly appear to be at risk of negative outcomes as well.

Hypermasculinity – an exaggerated adherence to the stereotypic masculine gender role – is associated with negative qualities such as perpetration of physical and sexual violence (Mosher & Sirkin, 1984; Rapaport & Burkhart, 1984). Additionally, hypermasculinity has been linked with increased sexual arousal and more positive attitudes toward a nonconsensual sexual interaction (Beaver, Gold, & Prisco, 1992; Lohr, Adams, & Davis, 1997; Mosher & Anderson, 1986; Quackenbush, 1989; Szymanski, Devlin, Chrisler, & Vyse, 1993). Hyperfemininity, the feminine counterpart of hypermasculinity, has been largely ignored by the extant literature and only a handful of studies have been conducted to examine this construct.

As conceptualized by Murnen and Byrne (1991), hyperfemininity is an exaggerated adherence to the stereotypic feminine gender role. They also include a sexism component, such that hyperfeminine women are more likely to hold traditional attitudes and beliefs surrounding the rights and roles of women in society. The stereotypic feminine role is associated with caring and nurturance (Cacchioni, 2004), submissive behaviors, nicety, compliance, and politeness (Spence & Buckner, 2000; Street, Kimmel & Kromrey, 1995) among others. Following from these culturally normative correlates of femininity, one would expect a hyperfeminine woman to be more caring, submissive, emotional, and generally more invested in being feminine than the average female.

The limited research available about hyperfemininity has shown associations with negative outcomes and life experiences. For example, hyperfeminine women report higher levels of psychopathology and increased levels of alienation compared to women who score low on hyperfemininity (McKelvie & Gold, 1994). Hyperfemininity is also positively correlated with self-objectification, self-sexualizing behaviors, and both benevolent and hostile sexism (Nowatzki & Morry, 2009).

Several theorists have suggested the prevailing cultural norms of femininity—and by extension, hyperfemininity—can serve to perpetuate the “rape culture” by teaching women the correct way of dealing with possible sexual assault is passivity (Cherry, 1983; Murnen, Perot, & Byrne, 1989). Research using a previously developed hyperfemininity scale has supported this assertion – when hyperfeminine women are presented with a sexual assault situation, they tend to believe less should be done to stop or avoid such

situations (Murnen & Byrne, 1991). In addition, women high in hyperfemininity report being the victims of more coerced sexual experiences than other women (McKelvie & Gold, 1994). Finally, Maybach and Gold (1994) found hyperfeminine women are more likely to report increased attraction to and increased interest in dating a man portrayed in a nonconsensual sexual scenario, and increased arousal to, happiness with, and tolerance of these types of scenarios.

If hyperfemininity, as it is currently measured, serves to perpetuate rape culture and is related to several negative outcomes then it is important to have a well-constructed, valid, and reliable instrument to measure this construct. However, the existing scale created by Murnen and Byrne (1991) falls short both conceptually and methodologically.

Conceptually, the existing hyperfemininity scale (Hyperfemininity Scale, HFS; Murnen & Byrne, 1991) is based on a very narrow definition of hyperfemininity. The scale includes three basic characteristics of hyperfemininity: relationships as an ultimate goal, physical attractiveness/sexuality as a way to obtain and maintain relationships, and a preference for traditional sexual behavior in men. These categories emphasize the importance of sexuality within hyperfemininity but overlook other possible components of the construct. First, feminine gender roles norms generally include certain traditional roles within the household (e.g., cleaning, raising the children, cooking) which can be endorsed to varying degrees by women. As such, endorsement of such traditional roles is likely a component of hyperfemininity. Second, feminine gender roles norms also include feminine emotional traits, but the existing scale overlooks emotionality as a possible

component of hyperfemininity. For the purpose of the current project, an expanded definition of hyperfemininity is proposed including the components of traditional values, emotionality, superficiality, manipulation and attraction to masculinity.

Since the creation of the HFS (Murnen & Bryne, 1991), only a handful of studies have examined hyperfemininity (e.g., McKelvie & Gold, 1994; Maybach & Gold, 1994). These studies have found correlations with variables related to sexuality (e.g., rape myth acceptance, history of sexual coercion) consistent with what would be expected based on their conceptualization of hyperfemininity. However, due to the emphasis on sexuality in the original scale, such correlations may be inflated or even created as an artifact of the scale. A new measure of hyperfemininity, using the expanded definition proposed in this paper, is necessary to understand the construct and explore negative individual and society consequences. In addition, an expanded definition may help to add to the predictive power of hyperfemininity through variability in endorsement of each component.

Additionally, there are three methodological issues of note with the existing hyperfemininity scale. The first major methodological problem is item presentation. The existing hyperfemininity scale presents opposite-statement pairs in a forced choice format. This format creates an all or nothing scenario, which results in the rater having to make an illogical judgment, especially in the case extreme words are included in the choices such as “always” and “never” (Travers, 1951).

The validity of the forced-choice technique is extremely questionable when choices are not matched for equality of preference value (Gordon, 1951). Items on the

HFS are not matched in this way. For example, the item “it’s okay for a man to be a little forceful to get sex” is paired with “Any force used during sex is sexual coercion and should not be tolerated.” This pairing creates a “good” and a “bad” extreme, which may unduly bolster the endorsement of the perceived “good” item. Further, when the existing scale is correlated with the Marlowe-Crown Social Desirability Scale (Crowne & Marlowe, 1960) the relationship is fairly strong ( $r=-.46, p< .01$ ), indicating it is not socially desirable to choose the hyperfeminine responses. Second, the authors of the HFS predicted three factors (as described above), but a factor analysis yielded ten factors with eigenvalues greater than one. Nonetheless, the authors retained only one factor for parsimony.

Finally, the scale consists of 26 forced-choice pairs. In the extant literature, high hyperfemininity is indicated by the endorsement of any eight items in the hyperfeminine direction. In addition, the authors conducted no analysis to determine which items, if any, are particularly indicative of hyperfemininity. Thus endorsement of less than one third of the items is indicative of hyperfemininity. Floor effects caused by the low level of endorsement of hyperfemininity increase the interpretive difficulty of this scale and could hinder analyses.

### **Exploratory Factor Analyses**

In order to develop a better measure hyperfemininity, five conceptual factors were hypothesized based on the existing literature and theory. These five hypothesized conceptual factors were traditional values, superficiality, sexual identity, interpersonal relationships, and hyperfemininity. “Traditional values” was defined as belief in and

adherence to stereotypical traditional feminine roles in the world, including the household and workplace. “Superficiality” was defined as the belief in the importance of being attractive. “Sexual Identity” reflected the belief sex could be used as a commodity or an instrumental method of obtaining and maintaining relationships with romantic partners. Additionally, this factor portrays men as initiators of sex and the expectation men use sex as an instrumental act of power and aggression. The fourth factor, “Interpersonal Relationships”, was defined to reflect a hyperfeminine woman’s idealization of masculinity in men and the devaluation of women, especially those who do not conform to the hyperfeminine image. The final factor, “Hyperfemininity”, was defined to reflect exaggerated female personality traits including exaggerated emotionality.

Graduate and undergraduate students generated a list of 143 items based on the five hypothetical factors. The list was then checked for wording and relevance. A shortened list of 69 items was sent to three expert reviewers<sup>1</sup>. The reviewers were chosen for their knowledge and expertise in gender roles and sexism. Experts were given information about hyperfemininity including the definition and proposed factors as well as a rationale for creating a new measure. After reviewing this information, they were asked to look at a list of items and categorize each item into one or more of the factors. They could also categorize items as not consistent with hyperfemininity or consistent with hyperfemininity but “does not fit one of the dimensions”. Finally, they were able to provide feedback on each item if they chose. Forty-two items were retained for five

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<sup>1</sup> Expert Reviewers were Karyn Plumm, Ph.D. (University of North Dakota), Craig Nagoshi, Ph.D (Arizona State University), and Barry Burkhardt, Ph.D. (Auburn University).

factors that represented a 100% agreement rate between the reviewers. These 42 items can be seen in Appendix A.

The remaining 42 items were administered to four hundred twenty-five women (mean age = 20.49,  $SD = 4.063$ ). Twenty respondents were removed from the analysis due to missing data. By self-report, respondents were 92.0% Caucasian, 2.6% Asian, 1.9% each of Native American and Hispanic and 0.5% each of African American and Other. Respondents reported their relationship status was 51.5% single, 39.8% in a dating relationship, 5.2% cohabitating couples and 3.5% were married or an equivalent.

An exploratory factor analysis was performed on the items to reveal the underlying structure and to determine if the factors produced matched the a priori conceptualization of the factors within hyperfemininity. A principal-axis factor extraction was performed on 405 cases of 42 variables. A promax rotation was used because the factors were expected to correlate. Three criteria were used to determine the number of factors retained and rotated: an a priori hypothesis of a five-factor solution, visual inspection of the scree plot, and the interpretability of the factor solution (Tabachnick & Fidell, 2007).

Based upon visual inspection of the scree plot, a four or five-factor solution seemed to be indicated. Both possible solutions were evaluated. The five-factor solution provided higher factor loadings as well as fewer cross-loading items. Thus, the five-factor model was retained for further manipulation. Fifteen items were removed from the factor analysis due to cross-loading or poor loadings, leaving 27 items in the analysis. After items were removed, Factors 1 through 5 accounted for 20.203%, 8.507%, 6.840%,



4.227% and 2.754% of the variance, respectively. A total of 42.531% of the variance was accounted for. Appendix C shows the items and factor loadings.

The factors were then interpreted and named. Factor 1 (Traditional Values) included 11 items and appeared to reflect a belief in and adherence to traditional feminine roles such as staying at home with children, expecting men to pay for a date, and believing a woman should be submissive to her romantic partner ( $\alpha = .830$ ). Factor 2 (Superficiality) contained six items, which appeared to reflect the importance of being/feeling attractive as a woman ( $\alpha = .758$ ). Factor 3 (Emotionality) contained seven items reflecting strong and exaggerated emotional reactions (e.g., “I cry easily”) ( $\alpha = .863$ ). Factor 4 (Manipulation) contained three items that appeared to reflect a manipulative quality to the use of femininity (e.g., “I have used crying as a way to get what I want from men.”) ( $\alpha = .774$ ). Factor 5 (Attraction to Masculinity) contained two items reflecting an idealization of a masculine mate (e.g., “I am attracted to strong, aggressive men.”) ( $\alpha = .634$ ).

Although the revealed factors were consistent with the conceptualization of hyperfemininity presented here, two of the factors had very few items (e.g., the attraction to masculinity factor was two items) and several of the items included problematic wording such as “always” and “never” (Travers, 1951). In order to improve the scale, several items were added to increase the number of items for the smaller factors, and the wording was altered for some other items. These changes can be seen in Appendix B.

Twenty-seven items on five factors were retained from the first EFA of the HFQ-42. Items 1-7, 10, 15, 16, 18, 30, 31, and 33, as shown in Appendix B were removed

after the original EFA. Items 11, 13, 21, 27, 40, and 41 were revised to improve item clarity and remove extreme wording such as “always” and “never.” Several of the remaining items underwent slight wording changes. For example, “I never leave the house without makeup on” became “I do not like to leave the house without makeup.” These wording changes were meant to clarify the meanings of the items and to soften their delivery. Thirteen items were then added to the list of items to help clarify the factors and to add items to factors with few items. The HFQ was then composed of forty four items.

Nine hundred and fifteen women (mean age = 20.49,  $SD = 5.489$ ) completed the questionnaires. One hundred and nine respondents were removed from the analysis because of missing or incomplete data. We randomly split the data into two files—one file was used to conduct this second exploratory factor analysis and the other file was used for a confirmatory factor analysis to be described later. By self-report, respondents were 92.4% Caucasian, 1.0% Asian, 2.0% African American, 2.8% each of Native American, 0.5% Hispanic, and 1.3% Other.

A second exploratory factor analysis was performed on the revised items from the HFQ to reveal the underlying structure and to determine if the factors produced matched the five factors determined in the first EFA. A principal-axis factor extraction was performed on 408 cases of 44 variables. A promax rotation was used because the factors were expected to correlate. The same three criteria were used to determine the number of factors to be retained and rotated as previously.

Based on the scree plot, a five-factor solution was indicated and five factors were retained for further manipulation. Twelve items were removed from the factor analysis because of cross-loading or poor loadings. This left thirty-two items in the analysis. After items were removed, Factors 1 through 5 accounted for 20.693%, 13.876%, 9.039%, 7.116% and 6.616% of the variance, respectively, for a total of 57.340% of the variance.

The factors were then interpreted and named. Factor 1 (Attraction to Masculinity) included seven items reflecting an idealization of a masculine mate (e.g., “I want a man who knows what he wants.”) ( $\alpha = .878$ ). Factor 2 (Emotionality) contained five items reflecting strong emotional reactions (e.g., “I cry easily”) ( $\alpha = .910$ ). Factor 3 (Manipulation) contained six items that appeared to reflect a manipulative quality to the use of femininity (e.g., “I have used crying as a way to get what I want from men.”) ( $\alpha = .874$ ). Factor 4 (Traditional Values) contained eight items and appeared to reflect a belief in and adherence to traditional feminine roles such as staying at home with children, expecting men to pay for a date, and believing that a woman should be submissive to her romantic partner ( $\alpha = .807$ ). Factor 5 (Superficiality) contained six items which appeared to reflect the importance of being/feeling attractive as a woman ( $\alpha = .779$ ). Appendix C shows the finalized items and Appendix E shows factor loadings.

### **Confirmatory Factor Analysis**

The second half of the data file used for the second EFA was used to conduct a confirmatory factor analysis (CFA). The CFA was conducted using Mplus 6.0 structural equation modeling software (Muthen & Muthen, 2010). The confirmatory factor analysis

was conducted using MLMV estimation, which employs “maximum likelihood parameter estimates with standard errors and a mean- and variance-adjusted chi-square statistic that are robust to non-normality” (Muthen & Muthen, 2010, p. 533). Multiple fit indices were examined to assess model fit, including the chi-square test of model fit (Hu & Bentler, 1999; Yu, 2002), Comparative Fit Index (recommended  $CFI \geq 0.95$  for good fit and  $CFI \geq .90$  for adequate fit: Rigdon, 1996; Hu & Bentler, 1999; Yu, 2002), Root Mean Square Error of Approximation (recommended  $RSMEA \leq 0.05$ : Rigdon, 1996; Hu & Bentler, 1999; Yu, 2002), and Standardized Root Mean Square Residual (recommended  $SRMR \leq .07$ : Hu & Bentler, 1999). Chi-square can be interpreted as a reasonable measure of model fit for models that are based on small samples (~ 75 to 200 cases). The present analysis was based on 398 participants, so the chi-square value was interpreted with caution. Modification indices that would result in a chi-square change equal to or greater than four were requested, and some pairs of residuals were allowed to correlate based on these modification indices, as well as the interpretability of the suggested modifications<sup>2</sup>. The unstandardized factor loadings are presented in Appendix F and the standardized factor loadings are presented in Appendix G; all items in the final model loaded significantly onto their respective factors ( $p < .001$ ). An examination of the fit indices indicated good model fit:  $\chi^2(448) = 691.77, p < .01$ ;  $CFI = 0.902$ ;  $RMSEA = .037$ ; and  $SRMR = .065$ , so this model was retained. The final item list is presented in Appendix C.

### **Abnormal Personality Traits and Psychopathology**

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<sup>2</sup> Pairs of residuals that were allowed to correlate were as follows: Items 4 and 5; 11 and 12; 13 and 14; 15 and 17; 20 and 21; and 27 and 28. These item numbers refer to the final list of items as presented in Appendix C.

Following two consistent EFAs and a CFA suggesting the reliability of the measure, the next logical step is to conduct a preliminary construct validation to show the validity of the construct and the scale. Hyperfemininity may be thought of as a maladaptive form of adherence to feminine cultural norms due to the negative outcomes associated with it (see McKelvie & Gold, 1994; Nowatzki & Morry, 2009.) If thought of this way, hyperfemininity will likely be related to several different abnormal personality traits and psychopathology. If such relationships are found, this will help support the validity of the proposed conceptualization of hyperfemininity and the proposed measure.

For the DSM-5, the Personality Disorders Work Group attempted to revise the approach to the diagnosis of personality disorders (American Psychiatric Association, 2013). Their first attempt to use a categorical trait approach was rejected as too complex for clinical practice. A second, hybrid model was created to include the evaluation of impairments in personality function across five areas of pathological personality traits. This new model was not accepted for inclusion in the DSM-5's main diagnostic manual, but was included in the appendix of the DSM-5 with recommendations for further study. This new methodology would assess personality traits and disorders based on the particular difficulties in personality function of an individual based on patterns of specific traits. Each personality disorder is defined by a specific pattern of traits within this model. The American Psychiatric Association has encouraged research to support this new hybrid dimensional-categorical model in order to better understand the causes and treatments of personality disorders (American Psychiatric Association, 2013).

The hybrid dimensional-categorical model of personality disorders includes twenty-five facets on five broad trait categories. The facets are combined to diagnose personality disorders based on impairment in areas such as views of themselves and relations with others. These facets will be used to help explore personality correlates of hyperfemininity.

After determining the internal consistency reliabilities of the HFQ (Borhart & Terrell, under review) remained stable and replicated and confirmed the five factor structure through two EFAs and a CFA, the next step was to collect data to support the construct validity of hyperfemininity. This study will serve as an exploratory analysis of construct validity through the use of personality measures, focusing specifically on maladaptive personality traits and psychopathology.

## **CHAPTER II**

### **METHODS**

#### **Sample**

The sample consisted of 758 females whose data was gathered on Qualtrics through the use of SONA Systems, Ltd (Version 2.72; Tallinn, Estonia). One hundred and fifty-eight respondents were deleted due to missing or incomplete data, leaving 600 females. From those 600 respondents, 11 more cases were removed due to invalidating the Personality Assessment Inventory (PAI; Morey, 2007). By self-report, respondents were 91.5% Caucasian, 2.5% Mixed Race, 2.4% Native American, 1.2% African American, 1% Asian, and 0.5% other. 96.9% of respondents were heterosexual with 1.4% each identified as homosexual and bisexual, and 0.3% identified as other. Respondents reported their relationship status was 48.7% single, 40.9% in a dating relationship, 6.1% cohabitating couples, 3.9% were married or an equivalent, 0.2% were widowed, and 0.2% were other.

#### **Procedures**

Participants completed several surveys on Qualtrics: demographics, the Hyperfemininity Questionnaire (HFQ; Borhart & Terrell, under review), the Personality Inventory for the DSM-5 (PID-5; Krueger, Derringer, Markon, Watson, & Skodol, 2012),

and the Personality Assessment Inventory (PAI; Morey, 2007). For their participation, research credit was awarded.

Each survey, excluding the PAI, included one or two attention check questions (e.g., “I have never seen a tree,” “John F. Kennedy was the first president”). If the respondent failed to answer the question in the expected direction, the study ended immediately and she was given her research credit. This was done to prevent as much invalid data as possible. In addition, prior to beginning the PAI, the respondent was asked to input a password given to them in SONA prior to the commencement of the survey on Qualtrics.

## **Materials**

### **Demographics**

Participants answered questions regarding gender, age, socioeconomic status, race, sexual orientation, highest educational level, location, political orientation, and religious fundamentalism.

### **Hyperfemininity Questionnaire (HFQ)**

The HFQ is 32 item self-report measure used to assess five dimensions of hyperfemininity: traditional values, superficiality, emotionality, manipulation, and attraction to masculinity. Each item is answered on a seven-point scale from “strongly disagree” to “strongly agree.” Factor analysis have shown good internal consistency (alphas ranging .779-.910; Borhart & Terrell, under review). This study found alphas to be good. Superficiality was 0.754, traditional values was 0.798, attraction to masculinity was 0.845, manipulation was 0.852, and emotionality was 0.905.



### **Personality Inventory for the DSM-5 (PID-5)**

The PID-5 (Krueger, Derringer, Markon, Watson, & Skodol, 2012) is a 220-item self-report measure that is answered on a four-point scale from “very false or often false” to “very true or often true.” The PID-5 takes approximately half an hour to administer. The PID-5 measures 25 facets on five factors. The factors are based on the five-factor model of personality and represent maladaptive versions of each of the five factors. The five factors are negative affect vs. emotional stability; detachment vs. extraversion; antagonism vs. agreeableness; disinhibition vs. conscientiousness; and psychoticism vs. lucidity. These facets are meant to be combined to predict personality disorders in the hybrid dimensional-categorical model. The median alpha is .86 with a range of .72-.96.

### **Personality Assessment Inventory (PAI)**

The PAI (Morey, 2007) is a 344-item self-report instrument that takes approximately 50-60 minutes to administer. Each item is rated on a four-point scale from false, not at all true, to very true. It consists of 22 non-overlapping scales covering a broad base of mental disorders. These scales include validity scales, clinical scales, treatment scales, and interpersonal scales. Reliability studies have shown that PAI scales have good internal consistency and validity studies have shown convergent and discriminant validity with many other measures of psychopathology.

## **CHAPTER III**

### **RESULTS**

Bivariate correlations were examined between the 25 facets of the Personality Inventory for the DSM-5 (PID-5) and the five factors of the HFQ. Additionally, bivariate correlations were examined between the PAI subscales and the HFQ factors. The purpose of these correlations was to examine the relationships between hyperfemininity and psychopathology and personality factors. These correlations were examined and interpreted based upon Cohen's (1988) conventions for interpreting effect sizes (small =  $r < 0.10$ ; moderate =  $r < 0.30$ ; large =  $r < 0.50$ ).

#### **Personality Inventory for DSM-5**

Bivariate correlations between the PID-5 and the HFQ were conducted on 589 cases. A summary of these results can be found in Table 1. Given the high number of cases, most facet-factor pairs were significantly correlated at  $p < 0.05$ . However, there were a number of correlations found with moderate to large effect sizes.

Several correlations in the moderate to large effect size range help to show construct validity of the various factors of hyperfemininity. First, the HFQ factor of emotionality is correlated with emotional lability ( $r = .629$ ). In addition, emotionality's correlation with restricted affectivity is very close to a moderate effect size ( $r = -.291$ ). These correlations provide evidence for the construct validity of the emotionality factor

of the HFQ. Second, the HFQ factor of manipulation is correlated with the PID-5 facets of deceitfulness ( $r = .394$ ) and manipulativeness ( $r = .597$ ).

Other correlations between the factors of the HFQ and the facets of the PID-5 show relationships between hyperfemininity and personality traits and psychopathology. These correlations may suggest hyperfemininity is maladaptive and has negative consequences; however, further research will be needed to determine the directionality of these relationships. Particular emphasis is given to moderate and strong effect sizes or approaching a moderate effect size ( $r < .25$ ) in the analysis of the correlations below.

Neither attraction to masculinity nor traditional values were correlated with any PID-5 facets with  $r < .25$ . Neither factor represents a personality trait; rather they represent preferences specifically focusing on relationships between the respondent and romantic/sexual partners and the roles of women in society. Thus there is no reason to have expected either factor to be correlated with personality factors or psychopathology.

Emotionality is moderately to strongly correlated with the PID-5 facets of emotional lability ( $r = .629$ ), anxiousness ( $r = .452$ ), and perseverance ( $r = .337$ ). Correlations with depressivity ( $r = .274$ ), hostility ( $r = .275$ ), restricted affectivity ( $r = -.291$ ), and separation insecurity ( $r = .299$ ) are approaching a moderate effect size. These correlations show relationships between emotionality and psychopathology such as depression and anxiety such that increased emotionality is related to increased psychopathology.

The HFQ factor of manipulation is moderately to strongly correlated with the PID-5 facets of attention seeking ( $r = .365$ ), deceitfulness ( $r = .394$ ), eccentricity ( $r = .301$ ), grandiosity ( $r = .314$ ), hostility ( $r = .408$ ), manipulativeness ( $r = .597$ ), and

Table 1: Bivariate correlations between the Hyperfemininity Questionnaire (HFQ) and the Personality Inventory for the DSM-5 (PID-5)

	Attraction	Emotionality	Manipulation	Traditional Values	Superficiality	Total
Anhedonia	.140	.140	.163	.109	.267	.260
Anxiousness	.169	.452	.240	Ns	.240	.371
Attention Seeking	.235	.122	.365	.112	.216	.327
Callousness	.102*	Ns	.221	Ns	.126	.143
Deceitfulness	.209	.135	.394	Ns	.206	.316
Depressivity	ns	.274	.249	Ns	.316	.273
Distractibility	.178	.186	.192	.139	.190	.285
Eccentricity	.129	.134	.301	Ns	.218	.258
Emotional Lability	.152	.629	.274	.099*	.214	.450
Grandiosity	.102*	Ns	.314	Ns	.142	.220
Hostility	.179	.275	.408	Ns	.239	.351
Impulsivity	.185	Ns	.217	Ns	.222	.233
Intimacy Avoidance	.140	Ns	.085*	.107*	.173	.145
Irresponsibility	ns	Ns	.259	Ns	.133	.134
Manipulativeness	.221	Ns	.597	.118	.264	.388
Perceptual Dysregulation	.095*	.215	.277	ns	.264	.291
Perseveration	.163	.337	.305	.101*	.286	.377
Restricted Affectivity	ns	-.291	.140	ns	.203	Ns
Rigid Perfectionism	.225	.237	.162	.109	.160	.288
Risk Taking	ns	Ns	.084*	ns	ns	Ns
Separation Insecurity	.247	.299	.299	.223	.368	.462
Submissiveness	.167	.187	.231	.173	.299	.339
Suspiciousness	.133	.184	.164	ns	.162	.211
Unusual Beliefs	.122	.096*	.273	.089*	.215	.246
Withdrawal	ns	.155	.189	ns	.253	.191

Note: ns = not significant, \*  $p < 0.05$ , not marked =  $p < .01$

perseveration ( $r = .305$ ). Correlations with emotional lability ( $r = .274$ ), irresponsibility ( $r = .259$ ), perceptual dysregulation ( $r = .277$ ), separation insecurity ( $r = .299$ ), and unusual beliefs ( $r = .273$ ) are approaching a moderate effect size. Again, these correlations show relationships between a hyperfemininity factor (manipulation) and psychopathology –

specifically, anxiety, unusual thought processes including depersonalization, derealization, and dissociative experiences, and beliefs about having unusual abilities such as mind reading or telekinesis. In addition, correlations with the manipulation factor suggest several personality/characterological traits of women with hyperfemininity: attention seeking, eccentricity, grandiosity, irresponsibility, and separation insecurity.

Finally, the superficiality factor is correlated with the PID-5 facets of depressivity ( $r = .316$ ) and separation insecurity ( $r = .368$ ) with moderate to strong effect sizes. Correlations with anhedonia ( $r = .267$ ), manipulativeness ( $r = .264$ ), perceptual dysregulation ( $r = .264$ ), perseveration ( $r = .286$ ), submissiveness ( $r = .299$ ), and withdrawal ( $r = .253$ ) are approaching a moderate effect size. Superficiality is related to increased psychopathology including symptoms of depression and anxiety. In terms of personality traits, superficiality is positively related to submissiveness and separation insecurity.

When taken together, the five factors of the HFQ form a total hyperfemininity score. Total hyperfemininity is correlated with anxiousness ( $r = .371$ ), attention seeking ( $r = .327$ ), deceitfulness ( $r = .316$ ), emotional lability ( $r = .450$ ), hostility ( $r = .351$ ), manipulativeness ( $r = .388$ ), perseveration ( $r = .377$ ), separation insecurity ( $r = .462$ ), and submissiveness ( $r = .339$ ) with moderate or strong effect sizes. Correlations with anhedonia ( $r = .260$ ), depressivity ( $r = .273$ ), distractibility ( $r = .285$ ), eccentricity ( $r = .258$ ), perceptual dysregulation ( $r = .291$ ), and rigid perfectionism ( $r = .288$ ) approach a moderate effect size. Overall, the relationships between facets on PID-5 and the factors of the HFQ show increased hyperfemininity scores are correlated with increased levels of

psychopathology, especially in women who scored higher on the factors of emotionality, superficiality, and manipulation. Specifically, higher levels of depressive and anxious symptomatology were noted in women who were higher in hyperfemininity. In addition, superficiality and manipulation were related to odd thinking and cognitive dysregulation.

Higher levels of hyperfemininity are also related to increased levels of dysfunctional personality traits including submissiveness, separation insecurity, perfectionism, eccentricity, attention seeking, and grandiosity. Interestingly, separation anxiety is the only facet correlated with all five HFQ factors at a level higher than  $r < .2$ .

### **Personality Assessment Inventory**

Bivariate correlations between the PAI and the HFQ were examined for 165 cases. Participants had to input a previously given password to complete the PAI. Many participants could not correctly remember the password and so were not allowed to complete the PAI. Additionally, 11 participants were removed from the analysis due to invalidation of the PAI (i.e., scores were elevated on Negative Impression Management (NIM), Positive Impression Management (PIM), Infrequency (INF), or Inconsistency (ICN) scales). Again, correlations to be discussed in this section have moderate or strong effect sizes or correlations approaching a moderate effect size ( $r < .25$ ). Table 2 shows all correlations between the HFQ and the PAI. The purpose of the current study is to explore correlations only and a significant correlation does not imply the PAI scale or subscale was elevated to an interpretable level.

The attraction to masculinity, manipulation, and traditional values factors on the HFQ were not correlated with any PAI scales with a moderate or strong effect sizes.

However, the attraction to masculinity factor was correlated with the irritability subscale

Table 2: Bivariate correlations between the Hyperfemininity Questionnaire (HFQ) and the Personality Assessment Inventory (PAI)

	Attrac- tion	Emotionality	Manipulation	Traditional Values	Superficiality	Total
NIM	ns	.185*	Ns	ns	.236	.222
INF	ns	ns	Ns	ns	Ns	ns
PIM	-.203	-.371	Ns	ns	-.295	-.320
ICN	ns	ns	Ns	ns	Ns	ns
SOM	ns	.298	Ns	ns	.187*	.171*
SOM-C	ns	.229	Ns	ns	Ns	ns
SOM-H	ns	.191*	Ns	ns	Ns	ns
SOM-S	ns	.339	Ns	ns	.246	.193*
ANX	ns	.528	Ns	ns	.199	.296
ANX-A	ns	.477	Ns	ns	.153*	.235
ANX-C	ns	.562	Ns	ns	.244	.351
ANX-P	ns	.371	Ns	ns	Ns	.193*
ARD	.198*	.279	Ns	Ns	.192*	.282
ARD-O	.209	ns	Ns	Ns	Ns	ns
ARD-P	ns	.453	Ns	Ns	Ns	.290
ARD-T	ns	.168*	Ns	Ns	.276	.211
DEP	ns	.268	Ns	Ns	.288	.178*
DEP-A	ns	.234	Ns	Ns	.296	.183*
DEP-C	ns	.251	Ns	Ns	.280	.211
DEP-P	ns	.218	Ns	Ns	.184*	ns
MAN	.282	ns	.190*	Ns	Ns	.194*
MAN-A	.165*	ns	Ns	Ns	Ns	ns
MAN-G	.162*	ns	.153*	Ns	Ns	ns
MAN-I	.273	ns	.237	Ns	.171*	.271
PAR	ns	ns	.170*	Ns	.250	.250
PAR-H	.165*	ns	Ns	Ns	.216	.217
PAR-P	ns	ns	Ns	Ns	.214	.208
PAR-R	ns	.187*	.154*	Ns	.184*	.186*
SCZ	ns	.175*	Ns	Ns	.261	ns
SCZ-P	ns	ns	Ns	Ns	.162*	.184*
SCZ-S	ns	ns	Ns	-.187*	.163*	ns
SCZ-T	ns	.211	Ns	Ns	.249	.197*
ANT	.165*	-.175*	Ns	Ns	.175*	ns
ANT-A	ns	ns	Ns	Ns	.201	ns
ANT-E	.183*	-.153*	.201	Ns	.180*	.164*
ANT-S	.173*	-.226	Ns	Ns	Ns	ns
BOR	.201	.403	Ns	Ns	.337	.372
BOR-A	ns	.459	Ns	Ns	.239	.258

Table 2 cont.

	Attrac- tion	Emotionality	Manipulation	Traditional Values	Superficiality	Total
BOR-I	.184*	.343	Ns	Ns	.322	.340
BOR-N	.269	.286	Ns	Ns	.304	.381
BOR-S	ns	ns	Ns	Ns	Ns	Ns
AGG	ns	.207	.182*	Ns	Ns	Ns
AGG-V	ns	ns	.226	Ns	Ns	Ns
AGG-P	ns	.213	Ns	Ns	Ns	Ns
AGG-A	ns	.159*	Ns	Ns	Ns	Ns
NON	ns	ns	Ns	Ns	.297	Ns
RXR	ns	-.267	Ns	Ns	-.303	-.263
WRM	ns	ns	Ns	Ns	-.173*	Ns
DOM	ns	ns	Ns	Ns	-.162*	Ns
SUI	ns	.157*	Ns	Ns	.220	Ns
STR	ns	ns	Ns	Ns	.251	.190*
ALC	ns	ns	Ns	ns	.153*	Ns
DRG	ns	ns	Ns	ns	Ns	Ns

Note: ns = not significant, \*  $p < 0.05$ , not marked =  $p < 0.01$

(MAN-I;  $r = .273$ ) of the PAI. The manipulation was also correlated with MAN-I ( $r = .273$ ). From the PAI manual, MAN-I measures a “certain degree of ambition in combination with low frustration tolerance” (Morey, 2007). MAN-I also includes impatience and sometimes a demanding nature. Attraction to masculinity is also correlated with BOR-N (Negative Relationships) ( $r = .269$ ) and the correlation approached a moderate effect size. This correlation suggests those women with a high attraction to masculinity score are more likely to become involved in intense and chaotic relationships (Morey, 2007).

The HFQ factor of Emotionality is correlated with a variety of psychopathology and personality scales on the PAI. Emotionality is correlated with anxiety, depression, and somatization. The Emotionality factor is also correlated with the subscales of the anxiety scale with moderate or strong effect sizes: cognitive ( $r = .562$ ), affective ( $r = .477$ ), and physiological ( $r = .371$ ). These correlations give support for the construct validity of this factor. Emotionality is also correlated with the phobias subscale of



anxiety-related disorders (ARD-P) at the moderate level ( $r = .453$ ). This subscale assesses common phobic fears and reactions as “heights, enclosed places, public transportation, and social exhibition” (Morey, 2007). Third, emotionality is correlated with somatization (SOM-S) at a moderate level ( $r = .339$ ). This suggests women with higher levels of the emotionality factor will likely have more vague and routine physical complaints including headaches, back pain, and gastrointestinal problems. Higher levels of SOM-S suggest lethargy and dissatisfaction. Finally, emotionality approaches a moderate effect size correlation with the cognitive symptoms of depression (DEP-C  $r = .251$ ). These symptoms include feelings or beliefs of inadequacy, powerlessness, and helplessness (Morey, 2007).

In addition to psychopathology, the emotionality factor is also correlated with various personality factors in the borderline (BOR) scale of the PAI. Specifically, it is correlated with affective instability (BOR-A) and identity problems (BOR-I) with moderate effect sizes ( $r = .459$  and  $r = .343$  respectively). The correlation of emotionality and negative relationships (BOR-N) approaches a moderate effect size ( $r = .286$ ). BOR-A suggests a propensity to rapidly alternate between various negative affective states including anger, depression, and anxiety (Morey, 2007). BOR-I suggests difficulties in maintaining a constant understanding of identity. This is often accompanied by sudden changes in ambitions and goals, uncertainty about major life issues, and difficulties creating and maintaining a sense of purpose (Morey, 2007). BOR-N suggests chaotic relationships and a distrust and pessimism surrounding current and future relationships (Morey, 2007).

Finally, emotionality is negatively correlated with the positive impression management (PIM) scale ( $r = -.371$ ) and the treatment rejection (RXR) scale ( $r = -.267$ ). A negative correlation with the PIM scale may suggest higher scorers on the emotionality factor of HFQ are more likely to respond candidly on the PAI and are may not be attempting to portray themselves in a positive light. A negative correlation with the RXR scale may suggest as a woman scores higher on the emotionality scale, she is more likely to acknowledge the need to make changes in her life, specifically in needing help to deal with her affective difficulties.

Similar to the emotionality factor of the HFQ, the superficiality factor is correlated with a variety of psychopathology and personality scales on the PAI. However, it is only correlated with BOR-I, BOR-N, and RXR with moderate effect sizes ( $r = .322$ ,  $r = .304$ ,  $r = -.303$  respectively). With effect sizes approaching the moderate level, the superficiality factor is correlated with the affective and cognitive symptoms of depression ( $r = .296$  and  $r = .280$  respectively), traumatic stress (ARD-T;  $r = .276$ ), paranoia (PAR;  $r = .250$ ), and schizophrenia (SCZ;  $r = .261$ ). These correlations suggest higher levels of general psychopathology. In addition, those who score higher on the superficiality factor score higher on nonsupport (NON;  $r = .297$ ), suggesting a perceived lack of social support and stress (STR,  $r = .251$ ) in familial relationships, finances, employment, or major life changes (Morey, 2007). Finally, superficiality is negatively correlated with PIM ( $r = -.295$ ).

Total HFQ scores are correlated with PIM ( $r = -.320$ ), ANX-C ( $r = .351$ ), BOR-I ( $r = .340$ ), and BOR-N ( $r = .381$ ) with moderate effect sizes. In addition, total scores are

correlated with RXR ( $r = -.263$ ), BOR-A ( $r = .258$ ), PAR ( $r = .250$ ), MAN-I ( $r = .271$ ), and ARD-P ( $r = .290$ ) with effect sizes approaching moderate.

## **CHAPTER IV**

### **DISCUSSION**

This study worked to provide initial and exploratory evidence for the construct validity of the HFQ. The five factors were examined in relation to psychopathology and personality factors as measured by the PID-5 and the PAI.

First, the internal consistency reliabilities of the five factors remained stable or improved with the wording changes and addition of new items examined through an EFA and a CFA. Specifically, the factors of attraction to masculinity and emotionality improved greatly as those factors were bolstered with additional items after the original exploratory factor analysis. Over time, the factors have been shown to be internally consistent and reliable. The use of a second exploratory factor analysis and a confirmatory factor analysis showed the factor structure to be stable. Following the finding of a stable and reliable factor structure, construct validation was explored within the current study. The construct validity of HFQ was supported through the use of the PAI and the PID-5. Specifically, the factors of emotionality and manipulation correlated well with corresponding factors on the PAI (ANX, ARD) and the PID-5 (emotional lability, restricted affectivity, manipulativeness, deceitfulness). The strong correlations found in this study support the construct validity of these factors. Further validation

efforts should focus on the construct validity of the three other factors: traditional values, attraction to masculinity, and superficiality.

Hyperfemininity was hypothesized to be a maladaptive form of adherence to the feminine gender role. Previous research showed mixed results related to psychopathology and hyperfemininity. Specifically, McKelvie and Gold (1994) found hyperfemininity to be related to higher phobic anxiety and higher depression. However, Kreiger & Dumka (2006) did not find any significant correlations between hyperfemininity and paranoid ideation, psychoticism, anxiety, or depression. The results of the current study were more consistent with McKelvie and Gold (1994). Correlations were found between HFQ scores and psychopathology. The results showed, as the manipulation and emotionality factors are increasingly endorsed (and to a lesser extent superficiality), negative affectivity is also increasingly endorsed. Respondents with higher endorsement of these HFQ factors are more likely to endorse anxious symptomatology such as ruminative worry, vigilance to expected danger, tension, apprehension, nervousness, and autonomic accompaniment (e.g., racing heart, sweaty palms, dizziness). In addition, they are more likely to endorse depressive cognitions such as beliefs in self-inadequacy, powerlessness, and helplessness, and somatization including vague and diffuse somatic complaints lethargy, and dissatisfaction. Finally, when manipulation is endorsed at a higher level, unusual thought processes related to anxiety, dissociative experiences, and unusual abilities such as mind reading or telekinesis. Overall, increased levels of hyperfemininity are related to increased levels of psychopathology, especially in women who scored higher on the factors of emotionality, superficiality, and manipulation. In particular, higher levels of

depressive and anxious symptomatology were noted in women who were higher in hyperfemininity. Superficiality and manipulation were also related to odd thinking and cognitive dysregulation.

The current study offers evidence hyperfemininity is related to several personality and interpersonal relationship subscales on the PID-5 and the PAI. Overall, increased endorsement of hyperfeminine items is related to submissiveness, separation insecurity, perfectionism, eccentricity, attention-seeking, grandiosity, irritability, lack of consistent self-identity, and erratic, explosive, chaotic, and dysfunctional relationships. Specifically, the factor of manipulation is related to nearly all these personality characteristics and is additionally related to a perceived lack of social support. A perceived lack of social support contributes to decreased resources for dealing with life crises, increased stress reactions, and the belief that others will be uncaring and rejecting (Morey, 2007).

The attraction to masculinity and emotionality factors are correlated with increased negative relationships – where the respondent's closest relationships are likely to be stormy. The respondent is likely to believe others are failing to meet her needs engendering distrust and pessimism about relationships (Morey, 2007). Fear of rejection would also be common amongst those who endorse negative relationships on this scale. Interestingly, the PID-5 facet of separation anxiety is the only facet correlated with all five factors at a level approaching a moderate effect size. It has been argued separation from a caretaker (in this case, likely a significant other) increases the probability of negative outcomes (Bowlby, 1973; Marks, 1987). In addition, Chambless (1989) argued separation and the adoption of new roles and responsibilities is more difficult for women,

especially when low autonomy is an issue. Given the traditional values component of hyperfemininity, women who score high on the HFQ likely show low autonomy and low perceptions of competence, which may lead to greater separation anxiety. Relationships for women who endorse higher levels of hyperfemininity are intense, stormy, problematic, and perceived as unsupportive; however, due to increased levels of separation anxiety relationships are likely to be thought of as necessary and are tolerated. This may be the path through which rape culture is accepted and perpetuated and negative and abusive relationships are tolerated by hyperfeminine women (Murnen & Byrne, 1991; McKelvie & Gold, 1994). Conversely, the entire sample was enrolled in a university so, according to Chambless (1989) separation anxiety might be generally elevated. Further research is needed in this area to determine the link between hyperfemininity, separation anxiety, and tolerance of sexual violence and rape culture

In addition, increased levels of hyperfemininity, specifically due to higher endorsement of the emotionality and superficiality factor, are related to increased identity difficulties. In particular, they may show sudden shifts in goals and difficulties in developing and maintaining a sense of purpose. In addition, they may have feelings of emptiness, boredom, and lack of fulfillment (Morey, 2007). Research in this area is entirely lacking.

Finally, the current study showed the HFQ was negatively related to the positive impression management scale of the PAI. This suggests higher scores on the HFQ are not attempts to look good or downplay common negative attributes. Second, scores on the HFQ are not correlated with the negative impression management (NIM) scale at a

moderate or strong level and HFQ scores are not at all correlated with the infrequency (INF) or inconsistency (ICN) scales. Taken together, this suggests scores on the hyperfemininity scales are not the result of an attempt on the part of the respondent (conscious or not) to portray herself in a particularly positive or negative light. This pattern may suggest while hyperfemininity is related to psychopathology and maladaptive personality characteristics, it is not necessarily ego-dystonic. The women in this study who were scored highly on the measure might not see the relationship between their beliefs about themselves and their femininity and difficulties with psychopathology. If this pattern continues in further research and the directionality of the relationship can be established, it could suggest insight and skills oriented interventions to reduce exaggerated adherence to feminine norms and psychopathology.

Further research needs to be done to continue to establish the reliability and validity of the measure. If reliability and validity can be further established, along with evidence of the directionality of the correlational relationships found in this study, the measure can be used to identify women who may be in need of intervention to address problematic and exaggerated adherence to the societally defined feminine gender role norms. At the societal level, hyperfemininity has been predicted to increase and perpetuate rape culture, the HFQ can help to identify more information about this relationship which may inform educational and preventative strategies to reduce belief in rape myths and a reduction of rape culture.

### **Limitations**



There are cultural and analytic limitations to the data's generalizability and applicability in its current form. First, femininity is a culturally defined construct that differs according to the identity and status of the woman in question. Race, ethnicity, age, generation, and sexual orientation (among other variables) can all impact the nuances in the definition and appropriate expression of femininity (e.g., Bond & Cash, 1992). Because of this, our sample of primarily female Caucasian undergraduate students cannot be expected to be representative of other groups. It is likely differences in levels of hyperfemininity will be found in a sample of older women or a sample of Latina women. Because of this, it will be important in future samples to expand the range of participants to include a diversity of women and to examine the differences in hyperfemininity between groups.

Second, the current study was exploratory in nature. There were no specific a priori hypotheses surrounding how the HFQ would be related to psychopathology or personality variables. This author attempted to circumvent the statistical difficulties inherent in this analytic strategy by only examining correlations with moderate or strong effect sizes. However, further exploration of these variables with more specific hypotheses will be necessary before the correlations found in this study can be determined to be non-spurious.

### **Future Directions**

The current study advances the HFQ and refinement of our understanding of hyperfemininity as a construct. Given this construct is poorly researched, much can be done to further this area of the literature. The current study supported the construct

validity of the emotionality and manipulation factors of the HFQ. Further construct validation can be done on the other three factors. For example, the attraction to masculinity factor can be validated in several ways. First, women can be given the HFQ and then rate pictures of males on attractiveness, level of interest in dating, level of interest in a sexual relationship, masculinity, among other variables. Alternatively, a study can show women a picture of a neutrally attractive male (pre-rated) and give them a written description of hobbies (masculine vs. non-masculine) and have the respondents rate the male on all above listed variables.

Previous research has found correlations between hyperfemininity, using the previous measure (Murnen & Byrne, 1991), and rape myth promulgation, sexism, and achievement orientation (e.g., Murnen & Byrne, 1991; Field, Kolbert, Crothers, Kanyongo, & Albright, 2011). Future research should continue to explore the validation of the HFQ by comparing it to the same constructs based on previous results.

Finally, future research should focus understanding others' reactions to and perceptions of women who are hyperfeminine. As the current study has shown, relationships seem to be very important to women who score higher on the hyperfemininity measure, it follows others' reactions and perceptions may play an important role in the psychopathological sequelae. This will be especially true if reactions are generally negative.

Overall, the current study has shown increased psychopathology, including depression and anxiety, to be correlated with higher levels of hyperfemininity. It has provided support for hyperfemininity as a maladaptive adherence to femininity. In

addition, the HFQ will allow us to further understand woman and various roles and beliefs embodied by the current culture. Using this scale, we can continue to explore the difficulties associated with an exaggerated adherence to a stereotypical feminine role (e.g., increased rape myth acceptance, increased levels of passivity in sexually coercive situations, increased pathology). If such results, predicted from the previous research, are found this important information can be used to craft interventions and preventative measures designed to address these beliefs and decrease maladaptive coping in women who espouse them.

## **APPENDICES**

Appendix A  
Initial Item List

1. I would rather be beautiful than smart (S; X)
2. I know other women are jealous of me because of my looks (S; X)
3. A woman should dress to please her romantic partner (S; X)
4. It is very important that I always look my best (S; X)
5. I believe in always being a good hostess (TV; X)
6. I have broken dates with female friends when a guy has asked me out (IR; X)
7. In the past, I have attracted romantic partners using sex (SI; X)
8. I don't like to be around women who are more attractive than me (S)
9. Men only like women who look like supermodels (S)
10. I would get plastic surgery to be more attractive (S; X)
11. I would never let my romantic partner see me without makeup on (S)\*
12. It is more important for my romantic partner to be satisfied with our sexual relations, even if I am not (SI)
13. I would never leave the house without makeup on (S)\*
14. I think a woman should stay home with her children (TV)
15. It's okay for me to make more money than my husband (R; TV; X)
16. When my romantic partner is angry with me, I often use sex as a way to calm him (SI; X)
17. I would withhold sex from my romantic partner in order to get my way (SI)
18. A day or two of being hungry is worth it to fit into a smaller size (S; X)
19. A woman should be mainly responsible for raising her children (TV)

20. Men should open doors for women (TV)
21. If I refuse sex, my romantic partner would leave me (SI)\*
22. The man should be head of the household (TV)
23. Men should always be ready to pay for a date (TV)
24. A woman should be submissive to her romantic partner (HF)
25. I manipulate people to get what I want (HF)
26. I have been told I am a drama queen (HF)
27. I have used crying as a way to get what I want from men (HF)\*
28. I hope to be engaged/I had hoped to be engaged in my early 20s (TV)
29. I am attracted to strong, aggressive men (IR)
30. I have been described as a “girly girl” (HF; X)
31. I sometimes act sexy to get what I want from a man (SI; X)
32. I cry easily (HF)
33. I enjoy movies where a prince rescues a princess (HF; X)
34. I would choose a career that will work best for my family (TV)
35. Men should do the work that involves physical exertion (TV)
36. I have used crying as a way to influence people (HF)
37. I should never be separated from my children for an extended period of time (TV)
38. I am most attracted to masculine men (IR)
39. I have been told I am very emotional (HF)
40. It is important for a woman to stay close to home so she can always be around her family (TV)\*
41. I have been told I am overly sensitive (HF)\*

Note:

R = Item was reverse-coded

\* indicates that item was modified from original wording

X = Item was deleted

HF = Item is on the hyperfemininity subscale

IR = Item is on the interpersonal relationships subscale

TV = Item is on the traditional values subscale

SI = Item is on the sexual identity subscale

S = Item is on the superficiality subscale

## Appendix B Revised Item List

Questions 1-12 comprise the traditional values factor, 13-19 comprise the appearance/superficiality factor, 20-26 comprise the emotionality factor, 27-32 comprise the manipulation factor, and 33-40 comprise the attraction to masculinity factor.

1. I think a woman should stay home with her children
2. A woman should be mainly responsible for raising her children
3. Men should open doors for women
4. The man should be the head of the household
5. Men should always be ready to pay for a date
6. A woman should be submissive to her romantic partner
7. I hope to be engaged/I had hoped to be engaged in my early 20s
8. I would choose a career that will work best for my family
9. Men should do the work that involves physical exertion
10. I should never be separated from my children for an extended period of time
11. It is important for a woman to stay close to home
12. A woman should stay close to her family
13. I sometimes worry that if I refuse sex, my romantic partner might leave me
14. I do not like to leave the house without makeup
15. It is more important for my romantic partner to be satisfied with our sexual relations, even if I am not



16. I do not like it when my romantic partner sees me without makeup
17. Men only like women who look like supermodels
18. I don't like to be around women who are more attractive than me
19. I don't like women who are more attractive than me\*
20. I cry easily
21. I have been told I am very emotional
22. People say that I am overly sensitive
23. I tend to over-react\*
24. I have a hard time controlling my emotions\*
25. I often become emotional when watching sad or romantic movies\*
26. I use crying to influence people
27. I have used crying as a way to get what I want from men
28. I have been told I am a drama queen
29. I manipulate people to get what I want
30. I would withhold sex from my romantic partner in order to get my way
31. People say that I have a knack for getting what I want from others\*
32. I often act unable to do something so others will do it for me\*
33. I am attracted to strong, aggressive men
34. I am most attracted to masculine men
35. I want a man who knows what he wants\*
36. I enjoy romantic movies with strong male leads\*
37. I like when a man is willing to fight for me\*
38. I want a man who is able to defend my honor\*

39. I like men who are very athletic\*

40. Men who are able to take charge of a situation are very attractive\*

Note:

\* indicates a new item

## Appendix C

### Final Item List

Items 1-7 comprise the attraction factor; items 8-12 comprise the emotionality factor; items 13-18 comprise the manipulation factor; items 19-26 comprise the traditional values factor; and items 27-32 comprise the appearance/superficiality factor.

1. I am most attracted to masculine men
2. I want a man who knows what he wants
3. I enjoy romantic movies with strong male leads
4. I like when a man is willing to fight for me
5. I want a man who is able to defend my honor
6. I like men who are very athletic
7. Men who are able to take charge of a situation are very attractive
8. I cry easily
9. I have been told I am very emotional
10. People say that I am overly sensitive
11. I tend to over-react
12. I have a hard time controlling my emotions
13. I have used crying as a way to get what I want from men
14. I use crying to influence people
15. I manipulate people to get what I want
16. I would withhold sex from my romantic partner in order to get my way
17. People say that I have a knack for getting what I want from others
18. I often act unable to do something so others will do it for me

19. I think a woman should stay home with her children
20. The man should be the head of the household
21. A woman should be submissive to her romantic partner
22. I would choose a career that will work best for my family
23. Men should do the work that involves physical exertion
24. I should never be separated from my children for an extended period of time
25. It is important for a woman to stay close to home
26. A woman should stay close to her family
27. I sometimes worry that if I refuse sex, my romantic partner might leave me
28. It is more important for my romantic partner to be satisfied with our sexual relations, even if I am not
29. I do not like it when my romantic partner sees me without makeup
30. Men only like women who look like supermodels
31. I don't like to be around woman who are more attractive than me
32. I don't like women who are more attractive than me

Appendix D  
Factor Loadings and Communalities ( $h^2$ ) based on Items in Appendix A, using Principal  
Factors Extraction with Promax Rotation.

	Factor Loadings					$h^2$
	1	2	3	4	5	
1. I would rather be beautiful than smart	.103	.306	.121	.033	.079	.224
2. I know other women are jealous of me because of my looks	.071	-.174	.350	-.105	.040	.088
3. A woman should dress to please her romantic partner	.286	.060	.221	-.072	.219	.279
4. It is very important that I always look my best	.090	.256	-.061	.069	.137	.121
5. I believe in always being a good hostess	.158	-.005	-.081	-.031	.233	.087
6. I have broken dates with female friends when a guy has asked me out	.162	-.008	.278	.018	.067	.152
7. In the past, I have attracted romantic partners using sex	-.107	.041	<b>.514</b>	-.117	.121	.263
8. I don't like to be around women who are more attractive than me	.061	.390	.134	.074	.079	.306
9. Men only like women who look like supermodels	.035	<b>.594</b>	-.105	.040	.046	.330
10. I would get plastic surgery to be more attractive	-.165	.399	.097	.102	.267	.305

Appendix D. cont.

	Factor Loadings					
	1	2	3	4	5	$h^2$
11. I would never let my romantic partner see me without makeup on	-.039	<b>.860</b>	-.096	-.097	-.125	.603
12. It is more important for my romantic partner to be satisfied with our sexual relations, even if I am not	.109	.355	-.032	.033	-.002	.160
13. I would never leave the house without makeup on	-.094	<b>.725</b>	-.042	-.011	.019	.458
14. I think a woman should stay home with her children	<b>.630</b>	.009	.025	-.002	-.187	.389
15. It's okay for me to make more money than my husband	-.311	-.194	.031	-.029	.240	.183
16. When my romantic partner is angry with me, I often use sex as a way to calm him	-.064	.285	<b>.488</b>	-.110	-.046	.391
17. I would withhold sex from my romantic partner in order to get my way	.004	.007	<b>.591</b>	-.091	.105	.353
18. A day or two of being hungry is worth it to fit into a smaller size	-.007	<b>.433</b>	.051	.068	.260	.345
19. A woman should be mainly responsible for raising her children	<b>.569</b>	.138	.057	-.063	-.214	.381

Appendix D. cont.

	Factor Loadings					
	1	2	3	4	5	$h^2$
20. Men should open doors for women	<b>.537</b>	-.056	-.045	-.034	.204	.335
21. If I refuse sex, my romantic partner would leave me	.052	<b>.545</b>	.059	.040	-.138	.361
22. The man should be head of the household	<b>.673</b>	.007	-.068	.008	.073	.460
23. Men should always be ready to pay for a date	<b>.654</b>	-.115	.113	-.038	.113	.465
24. A woman should be submissive to her romantic partner	<b>.472</b>	.218	.126	-.150	-.074	.356
25. I manipulate people to get what I want	.010	.028	<b>.624</b>	-.108	-.037	.361
26. I have been told I am a drama queen	-.048	.065	.323	.201	.000	.215
27. I have used crying as a way to get what I want from men	-.029	-.055	<b>.676</b>	.246	-.194	.590
28. I hope to be engaged/I had hoped to be engaged in my early 20s	.333	-.009	.051	.007	.020	.128
29. I am attracted to strong, aggressive men	.055	-.015	.311	-.103	<b>.457</b>	.353
30. I have been described as a “girly girl”	.079	.138	-.002	.309	.221	.233
31. I sometimes act sexy to get what I want from a man	-.074	.030	<b>.610</b>	.017	.366	.580
32. I cry easily	.016	.001	-.129	<b>.823</b>	-.092	.624
Appendix D. cont.						
	Factor Loadings					
	1	2	3	4	5	$h^2$

33. I enjoy movies where a prince rescues a princess	.303	-.031	-.093	.227	.119	.181
34. I would choose a career that will work best for my family	<b>.511</b>	-.080	-.156	.068	.264	.350
35. Men should do the work that involves physical exertion	<b>.550</b>	-.015	.137	.042	.067	.409
36. I have used crying as a way to influence people	.070	-.126	<b>.628</b>	.340	-.128	.625
37. I should never be separated from my children for an extended period of time	<b>.440</b>	.081	-.120	.000	.187	.266
38. I am most attracted to masculine men	.134	.016	.069	-.034	<b>.633</b>	.487
39. I have been told I am very emotional	-.019	.003	-.022	<b>.880</b>	-.022	.749
40. It is important for a woman to stay close to home so she can always be around her family	<b>.666</b>	-.020	-.050	.065	.076	.472
41. I have been told I am overly sensitive	.016	.057	-.081	<b>.785</b>	.007	.597

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Appendix D. cont.

Note: Factor loadings > .4 are indicated by bold typeface. Factor 1 can be described as traditional beliefs about gender roles and family values; factor 2 can be described as a



superficial view of appearance and relationships; factor 3 can be described as the use of feminine characteristics such as emotion and sexuality to manipulate others; factor 4 can be described as endorsing the expression of emotions, sometimes exaggerated; and factor 5 can be described as endorsing attraction to masculinity. Correlations between factors were as follows:  $r = .349$  for Factor 1—Factor 2,  $r = .293$  for Factor 1—Factor 3,  $r = .236$  for Factor 1—Factor 4,  $r = .335$  for Factor 1—Factor 5,  $r = .420$  for Factor 2—Factor 3,  $r = .196$  for Factor 2—Factor 4,  $r = .214$  for Factor 2—Factor 5,  $r = .361$  for Factor 3—Factor 4,  $r = .241$  for Factor 3—Factor 5, and  $r = .013$  for Factor 4—Factor 5.

## Appendix E

Factor Loadings and Communalities ( $h^2$ ) based on Revised Item List in Appendix B,  
using Principal Factors Extraction with Promax Rotation.

	Factor Loadings					$h^2$
	1	2	3	4	5	
1. I think a woman should stay home with her children	-.015	.035	.026	<b>.479</b>	.036	.247
2. The man should be the head of the household	.046	-.095	.070	<b>.631</b>	.050	.443
3. A woman should be submissive to her romantic partner	-.012	-.142	.039	<b>.478</b>	.149	.264
4. I would choose a career that will work best for my family	.075	.024	-.045	<b>.475</b>	-.101	.252
5. Men should do the work that involves physical exertion	.039	-.074	.135	<b>.470</b>	.072	.291
6. I should never be separated from my children for an extended period of time	.010	.033	-.078	<b>.600</b>	-.049	.354
7. It is important for a woman to stay close to home	-.108	.005	-.034	<b>.869</b>	-.009	.674
8. A woman should stay close to her family	.044	.096	-.082	<b>.678</b>	-.083	.490
9. I sometimes worry that if I refuse sex, my romantic partner might leave me	.004	-.028	.049	.002	<b>.557</b>	.327
10. It is more important for my romantic partner to be satisfied with our sexual relations, even if I am not	.004	-.028	.080	.123	<b>.446</b>	.267

Appendix E. cont.

11. I do not like it when my romantic partner sees me without makeup	.049	-.027	-.058	-.027	<b>.594</b>	.323
12. Men only like women who look like supermodels	.015	-.096	.031	-.067	<b>.677</b>	.437
13. I don't like to be around women who are more attractive than me	-.012	.139	-.108	-.010	<b>.769</b>	.601
14. I don't like women who are more attractive than me	-.027	.080	-.012	.037	<b>.686</b>	.509
15. I cry easily	.059	<b>.777</b>	-.075	.013	-.012	.589
16. I have been told I am very emotional	-.022	<b>.957</b>	-.070	-.016	-.029	.861
17. People say that I am overly sensitive	-.047	<b>.860</b>	.012	.045	-.012	.751
18. I tend to over-react	.024	<b>.710</b>	.102	-.036	-.007	.544
19. I have a hard time controlling my emotions	.003	<b>.780</b>	.088	-.068	.088	.685
20. I have used crying as a way to get what I want from men	-.049	.163	<b>.633</b>	.099	-.012	.514
21. I use crying to influence people	.004	.199	<b>.733</b>	.015	-.034	.642
22. I manipulate people to get what I want	-.035	-.098	<b>.849</b>	.015	.001	.687
23. I would withhold sex from my romantic partner in order to get my way	.082	-.057	<b>.702</b>	-.073	.072	.509

Appendix E. cont.

24. People say that I have a knack for getting what I want from others	.013	-.089	<b>.790</b>	-.057	-.104	.532
25. I often act unable to do something so others will do it for me	-.022	.041	<b>.695</b>	.013	.051	.537
26. I am most attracted to masculine men	<b>.611</b>	-.062	.124	-.055	.082	.383
27. I want a man who knows what he wants	<b>.835</b>	-.014	-.038	-.107	-.049	.626
28. I enjoy romantic movies with strong male leads	<b>.676</b>	.077	-.082	.036	.041	.502
29. I like when a man is willing to fight for me	<b>.740</b>	.018	.034	.045	-.043	.579
30. I want a man who is able to defend my honor	<b>.707</b>	.053	.035	.134	-.024	.615
31. I like men who are very athletic	<b>.667</b>	-.038	-.059	-.020	.036	.436
32. Men who are able to take charge of a situation are very attractive	<b>.715</b>	-.002	.013	.055	.006	.552

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Note: Factor loadings > .4 are indicated by bold typeface. Factor 1 can be described as endorsing attraction to masculinity; factor 2 can be described as endorsing the expression of emotions, sometimes exaggerated; factor 3 can be described as the use of feminine

Appendix E. cont.

characteristics such as emotion and sexuality to manipulate others; factor 4 can be described as holding traditional beliefs about gender roles and family values; and factor 5

can be described as a superficial view of appearance and relationships. Correlations between factors were as follows:  $r = .097$  for Factor 1—Factor 2,  $r = .045$  for Factor 1—Factor 3,  $r = .437$  for Factor 1—Factor 4,  $r = .121$  for Factor 1—Factor 5,  $r = .281$  for Factor 2—Factor 3,  $r = .213$  for Factor 2—Factor 4,  $r = .285$  for Factor 2—Factor 5,  $r = .202$  for Factor 3—Factor 4,  $r = .407$  for Factor 3—Factor 5, and  $r = .199$  for Factor 4—Factor 5.

## Appendix F

Unstandardized Loadings (Standard Errors) 5-Factor Confirmatory Model Based on Final

List of Items presented in Appendix C

Item	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
1	1.00 (--)				
2	0.80 (0.07)				
3	0.87 (0.08)				
4	0.83 (0.07)				
5	0.85 (0.07)				
6	0.92 (0.07)				
7	0.84 (0.07)				
8		1.00 (--)			
9		1.12 (0.04)			
10		0.93 (0.04)			
11		0.62 (0.05)			
12		0.76 (0.04)			
13			1.00 (--)		
14			0.87 (0.06)		
15			1.01 (0.10)		
16			1.02 (0.09)		
17			1.05 (0.11)		
18			1.02 (0.09)		
19				1.00 (--)	

Appendix F. cont.

Item	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
20				1.18 (0.14)	
21				0.68 (0.12)	
22				1.24 (0.16)	
23				1.05 (0.15)	
24				1.56 (0.20)	
25				1.97 (0.22)	
26				1.66 (0.19)	
27					1.00 (--)
28					1.08 (0.15)
29					1.19 (0.20)
30					1.45 (0.22)
31					1.94 (0.28)
32					1.77 (0.26)

*Note:* Dashes (--) indicate that the standard error was not estimated.

## Appendix G

Standardized Loadings (Standard Errors) 5-Factor Confirmatory Model Based on Final

Items presented in Appendix C

Item	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
1	0.68 (0.03)				
2	0.70 (0.03)				
3	0.64 (0.04)				
4	0.66 (0.04)				
5	0.66 (0.03)				
6	0.69 (0.03)				
7	0.78 (0.03)				
8		0.82 (0.02)			
9		0.92 (0.02)			
10		0.82 (0.02)			
11		0.56 (0.04)			
12		0.70 (0.03)			
13			0.69 (0.03)		
14			0.67 (0.04)		
15			0.68 (0.04)		
16			0.66 (0.04)		
17			0.63 (0.04)		
18			0.71 (0.04)		



Appendix F. cont.

Item	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
19				0.43 (0.04)	
20				0.44 (0.04)	
21				0.29 (0.05)	
22				0.52 (0.04)	
23				0.44 (0.04)	
24				0.63 (0.03)	
25				0.83 (0.02)	
26				0.75 (0.03)	
27					0.39 (0.05)
28					0.41 (0.05)
29					0.50 (0.05)
30					0.62 (0.04)
31					0.80 (0.03)
32					0.85 (0.02)

*Note:* Correlations between factors were as follows:  $r = .009$  for Factor 1—Factor 2,  $r = -.012$  for Factor 1—Factor 3,  $r = .383$  for Factor 1—Factor 4,  $r = .015$  for Factor 1—Factor 5,  $r = .274$  for Factor 2—Factor 3,  $r = .116$  for Factor 2—Factor 4,  $r = .223$  for Factor 2—Factor 5,  $r = -.002$  for Factor 3—Factor 4,  $r = .499$  for Factor 3—Factor 5, and  $r = .089$  for Factor 4—Factor 5.

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